THE MARINE RECORD.

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AROUND THE LAKES.

CLEVELAND.

The new tonnage act went into effect July 1.

A crib for the new light has been placed in position.

The tug Maggie Sanborn is in Smith's drydock.

The Toledo yacht Oberon will contest in the regatta on the 4th.

The sidewheel steamer Keweenaw will take excursionists to Niagara Falls on the 4th.

Captain John Archer, who has chartered Thomas Dowling's tug Dreadnarght, will go into business for himself.

Captain Root, of the steamer Sage, reports a large amount of floating logs between Rond Eau and Point Au Pelee.

The Canadians will be pleased with our new shipping law, passed last week and which went into effect July 1st, instant.

Captain Al Robinson, master of the yacht Nadine, now on Chippewa Lake, was at this port and reports the excursion business lively on that water.

The new steamer George Spencer, now building at Quayle's Son's ship yard, is progressing finely, and it is thought she will be ready to go into the water on Saturday.

At the Globe drydock the tug John Martin received a new stern; the tug Charles Castle part new stern; the schooner Richard Winslow four timber heads, and the schooner Our Son had her rudder fixed.

Captain Robert Greenhalgh has decided to close up his tug office and devote his time to his spar and sand yards. The Worswick has been placed in ordinary, the Mary Virginia and Bolton will remain at Ashtabula, and the W. H. Doane will be used in towing his sand lighters, etc.

Captain D. McCraig has been apppointed as master of the propeller Potomac, vice W. B. Barrington; Captain Edward Kelley, recently master of the tug Sprague, will take command of the propeller Wocoken, vice Captain Wm. Buffington, resigned.

The barge Transport, Captain Glass takes coal to Bay City at 40c. By the way Captain Glass has invented, and had patented, noiseless rubber rollers or wheels to be used on roller skates. They will be a great improvement on the noisy wooden wheel now in use, as all the gentle parlor skaters will say after they have used them.

The law which sailors have tried to get through Congress for a number of years, making it a penal offense to send out unseaworthy vessels, has just been passed, and owners who keep old hulks tied up until the high fall rates tempts them to fit out will, in the future, be very judicious.

The sloop yacht Scud is now lying at the docks. She hails from Buffalo and is under command of Captain T. F. Ellsworth. The Scud will spend the intervening time between now and the day of the regatta cruising between Cleveland and Put-in-Bay. J. W. Parker, her owner, will sell her if he can get what he wants for her.

The charters reported yesterday were the steamer A. Everett, coal, Buffalo to Marquette, 75c; schooner Sophia Minch, coal, Cleveland to Marquette, 70c; schooner H. C. Richards, ore, Escanaba to Cleveland, p. t.; schooner Eliza Gerlach, coal, Cleveland to Fayette, p. t. Rates are still firm at $1 and $1.15 to Ohio ports for ore, and 70 and 80c on coal to Milwaukee and Chicago.

Casper Carlton, engineer on the river boat Valley Mills, committed suicide Tuesday morning by jumping from the boat into the river. Carlton came down at the time to go to work as usual, but he was intoxicated and the captain discharged him. He was 35 years old. His parents reside in Buffalo.

The Inter Ocean informs us that the Ogemaw is a fine steambarge and was built last winter at Oscoda for the Chicago lumber trade. The steambarge Ogemaw was built at St. Clair by Langel in 1881, and was sold by Woods, Perry & Co., of Cleveland, to Penoyer Bros. last winter. She is 625 new tons burden, classed A1 and is valued at $54,000.

While John Doran, fireman of the tug Patrick Henry, was at work on the boiler last Thursday, one of the pipes burst and let a jet of steam on his back; burning him severely. The unfortunate man, crazed with pain, jumped overboard and swam across the river. Clambering up on the dock, he ran a short distance and once more plunged in the stream, making his way to Smith's dock, where he was taken in charge and conveyed home.

The steambarge Fred Kelley, Captain Fick, is in Globe drydock. She has been laboring under a mysterious leak for three or four years, and has been docked three or four times every season for the purpose of discovering it, every time unsuccessful, however. Captain Fick, for three years master of the Alcona, determined on finding the leak, traced it to the stern, and on the removal of a piece of false shoe, which had been placed there three or four years ago, the water, ten feet of which had been pumped into her, poured out in a stream. An examination showed a bolt hole, alongside of the bolt fastening the shoe. The workman had probably struck iron in boring the first hole and drove the bolt in a second hole, neglecting to stop the first. The working of the wheel had broken the two holes into one, hence the leak. An iron shoe will be put on after the hole is stopped, and a new wheel. Unsuccessful efforts have been made to learn where this neglect occurred. Captain Fick deserves a new log for locating the mischief.

ESCANABA.

Special to the Marine Record.

While the steambarge Oscar Townsend was on Gull Island, an explosion occurred on her, which resulted in the serious injury of an engineer. He had gone into the vessel's forecastle, taking with him a lantern. Suddenly a loud report was heard, which, on being investigated, proved that an explosion had occurred in the forecastle, and the engineer was taken out considerably injured about the head. The force of the explosion blew out the forward bulkhead. The cause of the explosion is a mystery, but the most plausible theory is that the gas generating from the coal of the steampump boilers on deck had passed into the forecastle and exploded when the lamp was taken in there by the engineer.

The steamship City of Cleveland, and schooners Saveland, T. P. Sheldon and Camden arrived from Milwaukee. E. G.

PORT ARTHUR.

No efforts have yet been made to raise the steamer J. S. Seaverns, which went to the bottom of Lake Superior several weeks ago, while bound from Chicago to Port Arthur. The boat had a valuable cargo, but it is quite doubtful if either the cargo or the boat ever reach the surface again.

CHICAGO.

Special to the Marine Record.

The schooner James B. Sawyer has been towed to Miller's shipyard for repairs to her stern, which was damaged by the big barge Brunette running into her. The work will take nearly two weeks before it is completed.

The annual report of the Marine Hospital is nearly ready to be forwarded to Washington. It shows that 4,105 persons have been treated during the year ended June 30, 1884. Of this number 3,432 were treated outside the hospital and 673 were received at the institution. These figures are considerably larger than the figures for last year.

The schooner Maine, lumber laden from Manistee, towed up the river with her flag at half mast. Captain Christopher reported that a sailor named Martin Tyarson fell overboard Friday night and was lost. He was aloft shifting a rafe, and his foot slipped from the foot rope, precipitating him into the lake. The deceased was about 42 years old and leaves a wife and family in destitute circumstances in Norway. He had been on the Maine three seasons.

The wreckers at work on the sunken sand carrier, the Imperial, have so far succeeded as to bring her decks almost to the surface, and hope to have her afloat this forenoon. She will be taken to Miller's drydock at once, where an examination of her hull will be made. The examination made by Rosel Downer tends to confirm the theory that the sinking of the Imperial was not so much the result of an accident as it was malicious design or negligence on the part of the officers of some steam craft.

Captain DeWolf, master of the steambarge Wetmore, says that it was not his vessel which ran down the schooner Bay State off Bailey's Harbor last week, although the crew of the Bay State at first believed that it was her, and so reported it upon their arrival here. The master of the Bay State is anxious to know who did it, and has begun inquiries which will probably lead to the finding of the strange craft.

The first license issued to a yacht under the special license act of 1873, was made out for the little River Queen in the Chicago Custom House. The law makes the cost of the license for all pleasure boats under twenty tons only $5, and the fee for measuring 10 cents per ton.

Captain Rounds has gone to Milwaukee to survey the steambarge Oscar Townsend, J. V. Fuller will represent the owners.

The repairs to the schooner North Cape will cost $1,000. Besides there is a claim of $500 from the steambarge Henry C. Chisholm for towing her from the Manitous to Milwaukee and the cost of unloading her grain.

The steambarges City of New York and Cumberland were in collision on Tuesday at Chicago, the result of which is a hole in the New York's quarter, which will involve $1,000 and a week to repair, beside $200 to Cutler & White's lumber dock. It is said the New York tried the monopoly dodge.

The steamer Peerless, of the Lake Michigan and Lake Superior line, left for Lake Superior last Tuesday evening with a large number of passengers. All her state rooms were filled.

The fine steambarge Ogemaw, of Oscoda, Captain Thomas Cowan, arrived Monday morning on her first visit to this port. Her tow consisted of the City of the Straits, Agnes and E. C. Roberts, and together they brought to our lumber yards over 2,000,000 feet of lumber.

The schooner Gilbert Knapp, of Kenosha, Captain Maloney, is in the Chicago Drydock Company's dock getting a leak stopped; the tug Thomas Hood is getting her bottom calked; Harry Fox & Co's No. 4 dredge is getting her crane fixed and some calking; the steambarge T. W. Snook had her bottom calked and some repairs; the schooner Conquest had some calking; the schooner Waukesha, some repairs; steambarge Annie L. Smith had six strakes of new planking amidships and some new rail.

J. S. Dunham's new wrecking tug was launched at Miller Brothers' shipyard last Saturday afternoon. She was named the T. T. Morford. Her dimensions have been given in the MARINE RECORD.

The schooner A. J. Sceville was in the Vessel Owners' drydock and had some calking and some new plank; the schooner Parana had some calking; the propeller City of Traverse had some repairs; the tug A. G. Van Schaick had her deck calked; schooner Milwaukee Belle is getting some repairs.

There was a large fleet of vessels on the lumber market Monday, but by Tuesday night nearly all the cargoes had been sold and the vessels gone to their docks to unload. The lumber shovers must be earning lots of money if the vessels are not.

The Anchor Line schooner Schuylkill is in Miller Brothers' drydock to get a leak stopped; the schooner J. D. Sawyer is getting a new stern and her cabin fixed. The tug Flossie Thielcke is getting considerable repairs and calking; the steamer Lawrence got a piece of new keel and a new shoe; the scow Moses Gage had a leak stopped. The steambarge Emma E. Thompson, having had a thorough rebuild, which will give her two feet more beam and increase her depth of hold 17 inches, went out of drydock on the 2d of July.

Freight rates are active at 1¾c for corn, and 2c for wheat to Buffalo; 5⅝c for corn, and 6¼c for wheat to New York via lake and canal.

The yacht Verve, which has been brought from Scotland, is of the following dimensions: Length over all, 48 feet; beam, 7 feet 6 inches; depth of hold, 7 feet. She draws 7 feet 8 inches of water and carries ten tons of lead, which is molded into her bottom. She is eleven tons register and spreads 1,400 yards of canvas when racing. E. W. Syer, Esq., of this city, owns her, and Captain Harry Estley is in command. She will accompany the Chicago Yacht Club yachts to Milwaukee Thursday and will race on Saturday. Great speed is expected from her, as she has beaten everything on the other side of the Atlantic. T. W.

ST. JOSEPH.

The owners of the schooner Regulator, ashore south of St. Joseph, have finally abandoned her altogether, and probably no further effort will be made to pull her out of the sand. Her hull has sunk deeply into the sand, and only her quarters are visible. It is considerd a useless job to attempt to get her out. She ran ashore last fall in the big November northwester, and the efforts made then to release her proved futile. This summer an expedition was sent to her. The Regulator was built at Buffalo by Jones in 1866, was 119 tons burden and owned by Helverson of Chicago.

SAULT STE. MARIE.

The schooner L. W. Breck, timber laden, is aground above the canal at Big Point on the Canada side.

MARINE LAW.

OPINION OF JUDGE SCOTT ON THE SMOKE ORDINANCE.

The following is the conclusion of the opinion of the Supreme Court in the case of William Harman vs. the City of Chicago, known as the smoke-ordinance case. The case being considered has many features in common with the North Chicago Railway Company, vs. Lake View, 105 Ill., 207. In that case it was clearly conceded that under a general grant of power over a nuisance, like the one in question, the town or municipal authorities have no power to pass an ordinance declaring a thing a nuisance which, in fact, is clearly not one, but it was said in doubtful cases when a thing may or may not be a nuisance, depending upon a variety of circumstances requiring judgment and discretion, on the part of town authorities, in exercising legislative functions under a delegation of power like the one we are considering, their action under such circumstances would be conclusive of the question. Accordingly, it was held the use of steam by the North Chicago Railway Company as motive power in operating its railway along the public streets of Lake View, contrary to the provisions of the ordinance of the town, was a nuisance. In the case being considered the effect of what defendant did in running his steam tugboat in the river within the corporate limits of the city is admitted, and what was done did create a nuisance in the language of the ordinance. At common law a nuisance was anything that works the least inconvenience or damage. A public or common nuisance was that which affected the public or is annoyance to the king's subjects at large. Precisely, that is the character of the "dense smoke" emitted from the defendant's steam tugboat. Its effect was detrimental to some classes of property and business within the city, and was a personal annoyance to the public at large. Defendant was, therefore, properly held to have been guilty ot creating a "nuisance" and was subject to the penalty of fine imposed by the ordinance. It is stipulated this court may take notice of the size and commercial importance of the city of Chicago, and the court may, of its own motive, take judicial notice of what is generally known, that is, that the city of Chicago is situated near the great coal fields of the State, and that much of the fuel used by the multitude manufactories in the city which produces the "dense smoke" of which complaint is made, is the common soft coal. In view of the magnitude of the interests involved, it is suggested it will not do to allow the common council to place an embargo on all the interests that have to use this coal. It may be some, and perhaps a very great, inconvenience would be experienced by a rigid enforcement of the provisions of this ordinance. How that may be this court cannot know. What powers the city council may exercise under the general law under its police powers is a question of law to be determined by the courts, but when the city council will exercise the powers with which it is clothed rests in its legislative discretion. And the consequence that may flow from the enforcement of ordinances enacted within powers conferred rest also upon the body enacting them, and with which the courts can have no concern. The judgment of the Appellate Court will be affirmed. Judgmen affirmed.

THE EMPIRE—LIBEL FOR DAMAGES.t

District Court, Eastern District Michigan.

In Admiralty. On Motion for a new trial.

This was a libel for damages suffered by the barge James F. Joy, while in tow of the steambarge Empire, and by reason of her alleged negligence. The case was tried by a jury, pursuant to Rev. St. §566, and a verdict returned for the libelant in the sum of $200. Motion was made for a new trial upon the ground that there was no evidence to justify the jury in rendering a verdict for so small an amount.

H. H. Swan, for the motion; James J. Atkinson, contra.

Brown, J. By Rev. St. § 566, "in causes of admiralty and maritime jurisdiction relating to any matter of contract or tort arising upon or concerning any vessel of twenty tons burden or upward, enrolled and licensed for the coasting trade, and at the time employed in the business of commerce and navigation between places in different states and territories upon the lakes and navigable waters connecting the lakes, the trial of issues of fact shall be by jury when either party requires it." This somewhat unfortunate clause was introduced by the revisors into the statutes from a somewhat hasty *dictum* of Mr. Justice Nelson in the case of the Eagle, 8 Wall. 25. In delivering the opinion of the court he remarked "that we must therefore regard it (the act of 1845) as obsolete and of no effect, with the exception of the clause which gives to either party the right of trial by a jury when requested, which is rather a mode of exercising jurisdiction than any substantial part of it." The history of the incorporation of this *dictum* into the Revised Statutes is fully given in the case of Gillett v. Pierce, 1 Brown, Adm. 553. But, whatever be the origin of the clause in question, there is no doubt that it is the law of the land and must be respected as such. There has been great difficulty, however, in determining in what cases and in what manner it is to be given effect. It creates what appears to be a very unjust discrimination in favor of the particular classes of vessels and causes of action enumerated in the act. Why it should be given in actions of contract and tort, and denied in those of salvage, general average, and prize, and why it should be limited to American vessels plying between domestic ports, and denied to all foreign vessels, and to American vessels engaged in foreign trade, it is impossible to conceive. The Eagle, *supra*.

A still more serious objection to the clause as it now stands arises from the fact that no provision is made for a review of cases so tried. If the same weight is to be given to the verdict of a jury impaneled under this act that is given to a verdict in a common-law case, then it clearly falls within the inhibition contained in the seventh amendment to the constitution, that "no fact tried by a jury shall be otherwise re-examined in any court of the United States than according to the rules of common law." As there is no opinion for a writ of error in this class of cases, the defeated party would be remediless. This question was, however, passed upon in the case of Boyd v. Clark, 13 Fed. Rep. 908, in which the defeated party took both an appeal and writ of error to the circuit court. Mr. Justice Matthews, before whom the case was argued, dismissed the writ of error and allowed the appeal, holding that the fact that the case was tried by a jury made no difference in determining the remedy to which the defeated party was entitled. He further observed that the provisions requiring trials by jury, in the seventh amendment, applies only to common law juries, and that, upon appeal, admiralty cases tried by a jury in the district court stand for trial in the circuit court precisely as if they had been tried by the district judge in person.

These objections to the act as it now stands, and the further one that there is probably no class of cases which a jury, as ordinarily constituted, is so unfitted to deal with as actions for torts upon navigable waters, have been deemed so serious that the practice of trying admiralty causes by a jury has not obtained in the district court to any extent. This case and that of Boyd v. Clark, *supra*, are, so far as I am informed, the only actions of tort tried by jury in this district during the almost forty years in which the act has been in force. In lieu of this method of procedure, we have for several years past, in analogy to the trinity master system obtaining in the English court of admiralty, adopted the practice of calling to the assistance of the court, in all difficult cases involving negligence, two experienced shipmasters, who sit with the judge during the argument and give their advice upon the questions of seamanship or the weight of testimony. I believe a somewhat similar practice has obtained in some of the other district courts. The Emily Olcott, 132. The Rival, 1 Spr. 128. The practice appears also to have received the sanction of the supreme court. The Hypodame, 6 Wall, 219 224; the City of Washington, 92 U. S. 31-38. I have frequently derived great assistance from the advice of nautical assessors myself, and have found this a most satisfactory and expeditious method of trying these cases.

The question still remains to be decided, however, what weight we shall give to the verdict of a jury impaneled under section 566. The question has never been directly decided; but in view of the opinion in Boyd v. Clark, *supra*, that their verdict is not binding upon the circuit court upon appeal, it seems to be a logical inference that it ought to be regarded in this court only as advisory. There is no reason for giving it greater weight in one court than in the other. In chancery cases the province of the jury is said to be to "enlighten the conscience of the court," and as the court of admiralty is but the chancery of the seas, I see no reason why we should not give it the same effect here.

In the case of Lee v. Thompson, 6 Woods, 167, a supplemental libel was filed in the district court, upon which there arose a question as to the validity of a certain assignment. The court made an order that the matter be tried by a jury, and it was tried accordingly. Upon appeal to the circuit court, Mr. Justice Bradley held that, although there was no power in the court of admiralty to try causes by jury, it was nevertheless proper to submit a question of fact to them for their opinion and advice; but that their decision was after all not conclusive, and the matter must finally be submitted to the judge of the court; citing Dunphey v. Kleinsmith, 11 Wall. 610.

In Basey v. Gallagher, 20 Wall. 670, a provision in a statute of Montana, declaring that an issue of fact "shall be tried by a jury, unless a jury trial is waived," was held not to require the court in equity cases to regard the findings of the jury as conclusive, though no application to vacate the findings be made by the parties, if, in the judgment of the court, such findings are not supported by the evidence. In delivering the opinion of the court Mr. Justice Field observed that "if the remedy sought be a legal one, a jury is essential, unless waived by the stipulation of the parties; but if the remedy sought be equitable, the court is not bound to call a jury; and if it does call one, it is only for the purpose of enlightening its conscience, and not to control its judgment. * * * Ordinarily, where there has been an examination before a jury of a disputed fact, and a special finding made, the court will follow it. But whether it does so or not must depend upon the question whether it is satisfied with the verdict. Its discretion to disregard the findings of the jury may undoubtedly be qualified by statute; but we do not find anything in the statute of Montana, regulating proceedings in civil cases, which affects this discretion."

While the language of the section (566) is peremptory, that either party is entitled to a jury trial, it is no more so than was the statute of Montana; and yet, notwithstanding the absolute right of a jury trial given by this statute, it was held that the jury was merely advisory. See, also, Dunn v. Dunn, 11 Mich. 284.

In the case under consideration the verdict of the jury was not consonant with any theory upon which the case was tried. If the jury had found there was no negligence, it was their duty to have returned a verdict for the defendant. If they found the tug was in fault, they should have returned a verdict for the damages suffered by the libelants, which the testimony showed were not less than $800; and if demurrage were included, were nearly $1,500. There was no evidence in the case to justify a verdict of $200; and it must be set aside.

THE SHIPPING BILL.

The shipping bill, as reported by the conference committee and passed by the Senate and House, is composed of thirty sections, and the substance of those provisions is as follows:

It allows an American vessel on a foreign voyage and till she returns home to fill vacancies in offices below captain by appointment of an alien. It abolishes three months' extra wages, and provides that one month's extra wages only shall be paid in cases of injury in the service of a vessel. Unnecessary and willful prolongation of voyage, willful sending of a ship to sea in an unseaworthy condition, sale of a vessel in a foreign country, and cruel treatment are prohibited. It increases the amount to be paid by the government for transportation of seamen in case of long voyages. It prohibited the payment of advance wages to seamen, but provides for allotments of wages to a seamen's relatives. It requires vessels in the foreign trade to carry shop chests, with supplies of clothing, etc., excluding, however, vessels in trade with the countries and islands of North and Central America from this obligation.

It abolishes consular fees for services to vessels, and provides for the payment of consuls from the Treasury for such services. It abolishes the tonnage tax as now imposed, and provides in lieu of the same for a duty of three cents per ton at each entry on vessels trading with any port in North or Central America and the adjacent islands, including the Sandwich Islands; and six cents per ton at each entry on all vessels from any other foreign trade; but requires the President to suspend the collection of so much of this tax on vessels from any foreign port in North or Central America as may be in excess of the tonnage and lighthouse dues imposed on American vessels by the laws of the country in which such port is situated. As Canada imposses no taxes on American vessels, the bill abolished the tonnage tax on vessels trading with Canada after July 1. It abolishes the marine hospital tax for seamen in both coastwise and foreign trade, and provides that the hospital service shall be defrayed from the tonnage. It largely reduces the tonnage tax. It provides that supplies for American vessels in the foreign trade may be imported in bond free of duty. It provides that the drawbacks, 90 per cent of the dues on imported materials for the construction of vessels on foreign account, on reexportation shall be allowed where vessels are partly constructed of imported materials in the same manner as when wholly constructed. It limits the individual liability of a ship owner to the proportion which his interests bears to the whole. It provides for the engagment of a seaman to serve on a voyage to any port or for a definite time, and exempts vessels making regular and stated trips from paying fees or reshipping seamen, and also authorizes the shipment of seamen in a foreign port for a definite time or voyage, and provides that seamen so shipped shall not be required to be reshipped. It allows the painting on the stern of a vessel of the name of the port of registry or the place in the same district where any of the owners live. It exempts vessels in trade with Canada and Mexico from the obligation to pay a tax on passengers so long as no tax is exacted on passengers coming from those countries by land carrage. It repeals all compulsory laws that oblige American vessels to carry the mails to or from the United States arbitrarily. Such repeal not to take effect until April 1, 1885. It gives sailing vessels the same privileges in unloading cargo that is given to steamships. It provides that shipping commissioners shall hereafter be appointed by the Secretary of the Treasury, instead of the circuit court, and shall be subject to regulations prescribed by him. It reduces the fees for inspection of steam vessels from $25 to $10 for the first 100 tons. It allows vessels arriving at a port of entry, laden with bulky articles like salt, etc., to proceed to places within that collection district to unload under certain conditions. The act awaits the President's signature, and is to go into effect July 1.

NAUTICAL NOTES.

There has been $8,000 appropriated for the improvement of the lake front off the marine hospital at Chicago.

The steam yacht J. H. Welch, of Erie, Captain Wm. Stanton, will run excursions from Ashtabula Harbor to Red Brook and other points.

The schooner W. B. Taylor, loads iron ore at Kingston for Cleveland, at Cleveland she loads coal for Sarnia, and at Sarnia she will take on a load of timber for Garden Island.

The owners of the Manitoba and the companies in which she is insured cannot come to terms. The steamer has been temporarily patched up and floated out of the drydock at Detroit.

The owners of the schooner H. C. Richards refuse to be represented in the survey on the schooner America, which was in collision with the Richards, and an ex parte survey was held.

Captain P. A. Lindquist has again been placed in command of the tug Goldsmith, while her former commander, Captain John Gilbraith, is engaged in fitting out the large scow recently purchased by the Two Rivers manufacturing company.

The tugs John Gordon and Commodore have had smaller wheels put on, because the larger ones were too cumbersome and too expensive to keep. With the smaller wheels the boats run faster and tow better.

Until further notice two red lantern lights will be exhibited, one on each end of the crib, which is to form the substructure of the new lighthouse and fog signal to be erected at the mouth of the Detroit river.

An instrument was filed in the Chicago Custon House showing that Aaron F. Leopold sold to Charles F. A. Spencer, the vessel agent, a three twelfths interest in the propeller Jay Gould for $8,750. The purchase makes Mr. Spencer a half owner of the Gould.

The steambarge Daisy Day, Captain John Anderson, which has been plying between Milwaukee and other west shore ports for several seasons, is being furnished with a new steel boiler and a full length cabin. The Day will in future engage in the passenger business, making Milwaukee the base of her operations and will touch at several west and east shore ports. As in the past she will run as often during the winter as the ice will permit.

FUEL SAVING FURNACE ANNEX.

Now that the opinion of the Supreme Court of Illinois, rendered at Ottawa, Ill. on the 13th inst. is adverse to the burning of coal which creates a dense smoke, the question of smoke consumers comes up prominently, on the alternative, the burning of hard coal. It is said that tugmen received the news philosophically enough, and will at once take steps to meet the requirements of the ordinance by burning hard coal. They have demonstrated that smoke burners, or at least the patents brought out to the present time can not be used successfully on their boats where the drought has to be forced, and every time a boat is caught out in heavy weather the consumer had to be taken out for her own safety. The only other course which remains open for them is to burn hard coal, which emits but very little smoke, and this will probably be done. The test of the ordinance was made by dealers in soft coal who have supplied the tugboats with fuel, the tugmen not caring to be defeated in the courts, as they fully expected to be. The result of the decision remains to be seen in the action of tug owners, who seem to think that some provision will have to be made to bear the extra cost of running their boats. A considerable advance in the towing tariff will have to be made to do this, as there is no other course open. Last fall Crawford & Walsh and other tug owners experimented with hard coal, using it for several months, only to find that it could not be burned at the tariff rates in then existence. The rates are the same this year as they were last year, hence the same conditions prevail. Soft coal can be purchased in any quantities for $3.10 per ton, while hard coal will cost not less than $6 per ton, and the difference in the amounts of each consumed is very slight. Vessel owners are objecting to the present tariff rates, and it is easy to prejudge their course in the event of any advance on them.

We however present to our readers an illustration of a smoke conaumer or preventive the invention of Mr. Hiram G. Wilson and manufactured by the Fuel Saving Furnace Annex Company, 157 Washington street, Chicago, which has already secured a good reputation by actual test, made by Messrs F. W. Laub & Co. engine supply manufacturers, No. 258 Michigan street, Chicago, and others. It is claimed it not only prevents smoke but assists in making steam rapidly and with large saving of fuel.

The Wilson device consists of two parts in

connection, i. e., the diaphragm or heat-conducting plate or plates, which in width covers the entire space between the side walls under the boiler, or battery of boilers, and extend from the rear end of the boiler forward to a suitable distance from the bridge wall, where it connects with a perforated plate or plates, which also extends the entire width between side walls and length of bridge wall, resting their upper edge upon the apex of the latter. In placing the diaphragm, or plates J, a suitable distance below the boilers, we form combustion chamber I and air duct K, which are, of course, the entire width of plate J and perforated plate M (see drawing.) Now if we admit air into K at the greatest possible distance from the bridge wall, it will naturally flow forward and enter combustion chamber I though perforations M, carrying with it whatever heat may have passed through diaphragm J, and thus add fuel (oxygen) to the fire as it comes over the bridge wall. If plates M be placed at proper angle, the air thus admitted and distributed will tend to spread and at the same time elevate the flames so that they will "hug" the boiler and induce more perfect combustion and absorption of heat. This spreading of the flames obviates the "blow-pipe" tendencies of concentrated forces. The air being thus admitted to combustion chamber I, in rear of and near the apex of the bridge wall, acts somewhat as a deflector to fire chamber E, so that while a smaller amount of coal will yield the same or greater heat than is usually produced by a large quantity, it will not be consumed as rapidly as if the whole draft came over or through it, and thus we obtain the economic results of more perfect combustion and utilization of heat without damage to metal employed in construction of steam producing appratus. The orific O for admission of air to duct K should be at rear of and as far as possible from the bridge wall, and protected by damper door to allow amount of air admitted to be regulated according to necess ties by atmospheric conditions.

It is not claimed that the subject of this article is a smoke consumer but that it prevents sufficiently the freeing of carbon to make smoke unobjectionable. The burning of the gasses by the feeding of oxygen through the forward plate consumes the major part of what becomes smoke when the Annex is not used. The Annex will also evaporate more pounds of water per pound of coal than can be done without, it and give better quality of steam. While the preventing of smoke is a consummation now desirable yet the great claim is decided economy in fuel and better results from the reduced quantity.

NEW LAKE STEAMER.

One year ago the Detroit & Cleveland Steam Navigation Company built an iron boat for the Detroit and Mackinac route. The vessel is over all 215 feet; width, 34 feet; depth, 11 feet; tonnage, 690. The boat was fitted with a beam engine which came out of a vessel that ran on Lake Champlain. The wheels are feathering. 22 feet diameter, making on average 30 revolutions per minute. The speed of the boat is 17 miles per hour. The size of the cylinder is 44 diameter by 10 feet stroke. The general manager of the line, David Carter, thought by compounding the engine they would save 20 per cent on fuel, and he recommended to the board of directors that this be done. They authorized the change and Mr. Carter contracted with the North River Iron Works, (late Fletcher, Harrison & Co..) to make the alteration in the engine by putting in a high pressure cylinder, 36 inches diameter by 6 feet 8 inches stroke. The engineer of the boat informs me that she makes the same time as before the alterations, and saves 33 per cent in fuel.

I enclose you a clipping taken from the Detroit Free Press, of the trial trip. I waited until I could find how the engine perfomed and how much saving there was in fuel before sending it to you.

"The trial trip of the steamer City of Mackinac, of the Detroit and Cleveland Steam Navigation Company's line, called forth a number of persons interested in vessels. The reason was because the steamer's engine had been compounded, making her the only sidewheel steamer on the lakes that has an engine of this class. The main object of the company in compounding the engine was to save fuel. * * * *

"On her trip down she passed Woodward avenue at 3:19, Third street at 3:21, Grassy Island light at 3:49, Mamma Juda light at 3:58, Park's Wharf, Amherstburg, 4:22 and Bois Blanc light at 4:25, making the whole distance of eighteen miles from Woodward avenue in one hour and 6 minutes. On her return the steamer made somewhat better time, taking the current into consideration, making the distance from Bois Blanc to the Michigan Central elevator in one hour and eighteen minutes. It was found that if the stroke of the engine were lengthened the steamer would make considerably better time."

The following officers have been appointed for the steamer this season:

Captain, Alex. McKay; first mate, K. Finlayson; second mate, J. McLarty; first engineer, R. Stage; second engineer, W. McDonald.—*Cor. Mechanical Engineer.*

THE KATZENSTEIN PACKING.

Within the last three months L. Katzenstein & Co. have furnished their metallic packing and tubular metallic packing to the following lines and steamers. This report leaves out of account all packing applied to stationary engines: Seven steamers for the North German Lloyds; eight steamers for the Hamburg-American Packet Co.; three steamers for the Anchor Line; two steamers each for the Cunard, Monarch and Red Star lines; one steamer each for the Bordeaux. Stettin Lloyd. Thingvalla and Red Cross lines; and twenty-three other steamships for various lines. They have also applied their packing to all the Greely relief steamers, for the United States Navy; at well as to about fifty tugs, steamboats and steam-yachts in New York harbor. For Lake Erie they have also used their skill and appliance on steamers in all the prominent lines. The packing is eloquent for itself, and L. Katzenstein & Co. are deservedly reaping the benefit of its excellent qualities, by being constantly called on to enlarge their sphere of action. They also furnished last week the metallic packing for the new North German Lloyds steamer Ems, and the new Cunard (former Guion) line steamer Oregon.

This excellent packing is also in use in this city at the waterworks, at the Standard Oil Works, at the Cleveland City Milling Co., the Cleveland Rolling Mill, and in the steamers Wallula, Kasota and Wocoken, and will also be placed in the new steamer being built at Quayle's Sons' shipyard for Captain Thomas Wilson.

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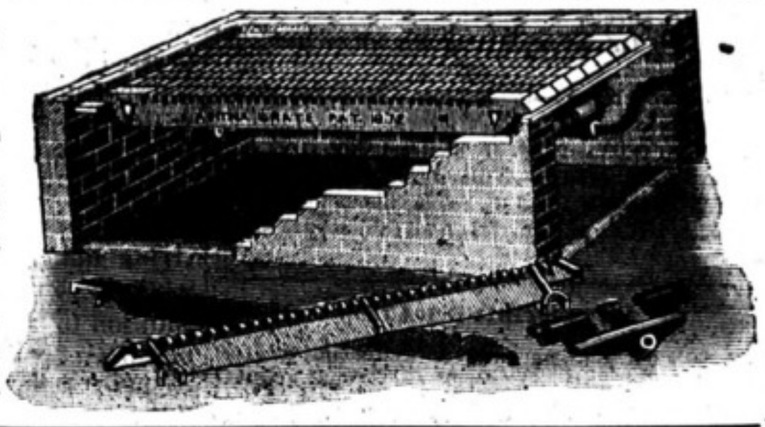

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Her length is 135 feet, beam 26 feet, and hold. 10 feet 10 inches. Boiler 17 feet long, 7 feet diameter; three flues, two 16-inch and one 17-inch. Engine 22x42. Carries 240,000 feet of lumber. Speed, 11 miles light, and 9 1-2 loaded. Insurance valuation, $15,300. Address MARINE RECORD Office, No. 144 Superior street, Cleveland, O.

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The Marine Record.

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A. A. POMEROY, Editor and Proprietor.

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CLEVELAND, OHIO, THURSDAY, JULY 3, 1884.

LIGHTS AND TORCHES.

Once more the expediency of carrying an abundance of light while sailing has been forced by the stern exponent of the law upon the attention of at least one master of craft. One would naturally think that personal safety would be a sufficient guard against negligence in this matter, but in sailing, as in everything else, long familiarity breeds recklessness. The coasting service records a recent event, which masters of vessels would do well to study. A large four masted schooner was sailing along off the Delaware capes a little after midnight, when she was run into and sunk by a passing steamer. The steamer people testified in the case brought by the owners of the schooner to recover damages, that they saw a white light bearing about three points on their starboard bow, but, though they watched carefully, they could not see any green or red light. As they could see no torch, however, they concluded the light belonged to a steamer. The judge, in giving his opinion, held that the absence of the torch, the distinguishing light by which steamers tell schooners from craft of their own kin, was enough to free the owners of the steamer from liability. This decision was rendered in the face of important testimony tending to prove carelessness on the part of the officers of the steamer. It was declared that the schooner's lights were properly set and burning brilliantly, and that with a good lookout on the steamer these lights, and even the sails, could have been seen in time to avoid the collision. The judge admitted this, but claimed that the first and most flagrant negligence laid with the schooner in not carrying a torch, and that negligence in one could not excuse negligence in another. Beside, he said, a flaming torch might have aroused the attention of even this careless lookout. We think this is a good point for vessel men to observe. It is perfectly natural for men to say of those at whose hands they have sustained damages, that they ought to have seen what light there was. After an accident it is but human to try to avoid the responsibility, and this cry, "had they been alert and watchful they might have avoided it," is more familiar than any other. But it is wrong both in logic and in law. The simplest way is to comply with the law. Let vessel men have the prescribed lights, all of them, set and burning, and nothing can make them responsible. All they have to do in case of accident by collision is to prove this fact and they are safe. They are not then called upon to show the neglect of the offending craft; that they have done their duty is evidence that no judge can ignore. As soon as possible after the law defines a necessary adjunct to the sailing apparatus of a vessel some enterprising inventor throws upon the market an article that will answer the requirements.

There is another point of interest in the case above cited to which we call the attention of the captains of sailing craft, that is that the binnacle light was carried unusually high, so that it corresponded with the white light of a steamer, which also served to mislead the approaching craft. Vessel men will at once see the importance of so placing lights as to not only render them readily visible, but to make them serve the purpose of distinguishing between steam and sail craft. Ship owners and ship builders are the ones most concerned in this. Safety of sailing depends very much upon the quality of the lights used and the positions in which they are placed.

THE CHICAGO BRIDGES.

The great city of Chicago may not be exactly a Venice, but if its area could be compressed to the limits of that renowned city of the sea, and its rivers and canals be brought within that boundry, the similarity between them would be more startling than many people imagine. Think of 4,100 steam and 7,108 sail craft, making a total of 11,203 vessels, arriving and clearing at that port in one year, which was the actual number in 1883. In addition to these we are not aware of the number of tugs employed in pulling them about. A majority of these craft probably have to find discharging docks somewhere in the heart of the city, as the extent of her lake dockage is small compared to that inside and away from the lakes, which of necessity desturbs the sleepy guardians of Chicago's, system of bridges. To these docks canals have been built, rivers dredged out, and water ways, natural and artificial, completed and the constant movement of vessels in and about the city can therefore be imagined. It is no wonder that the constant swinging of bridges and the impedment to travel and business is becoming a puzzling question of remarkable tenacity. It is not the less a problem from the fact that the dimensions of the shipping business is such that it can with some degree of reason urge the damaging effect upon craft brought about by their natural roads being so often closed for the accommodation of land traffic. Indeed, Chicago does not know what to do about it. Her city fathers are constantly proposing new bridge ordinances, which bring them into trouble just in proportion as they restrict one class or make concessions to the other. Some time ago a new rule was promulgated which would keep the bridges closed twenty minutes in each half hour, or, in other words giving one-third of the time to the passage of vessels and two-thirds to land traffic. This roused the whole maritime interest, and immediately petitions against the measure were sent around which were signed by many of the wealthiest and most influential business men of the city. It does not take very great insight to see that business men of pretty much all classes are directly interested in the prompt discharge and loading of cargoes. Lumber and coal dealers manufacturers, grain brokers, with hosts of others, to a less degree perhaps, lose money by delay and no one can tell how large a per centage of the interested vote the vessels would get if the question were balloted upon. It seems to be quite certain that unless the tide of lake commerce is turned some other way, science will have to step in to remove these mutual obstructions to business.

PROPOSED IMPROVEMENT OF BUFFALO HARBOR.

The requirements of the lake commerce are becoming more apparent each day. It was thought that the increased dockage gained for Buffalo harbor by the Tifft farm improvements would be adequate to the requirements of the immense commerce of that port, for a great number of years, adding from three to four miles of dock room, and costing when completed probably $4,000,000. But even this is not adequate to the demand and Congressman Rogers, of Buffalo district, who is showing much interest in the needs of her harbor, has again directed attention to the availability of Scajacquada creek, and has obtained an order for the survey of the creek by the government. Should the survey show that it would be practical to improve the creek for harbor purposes, the government may at an early day take the necessary steps to add it to Buffalo harbor. In this interest the Buffalo Express says: Scajacquada creek is really a part of Black Rock Harbor, but of late years, owing to the sewage of the state ditch, is so filled up as to be accessible only for canal boats and not even navigable for them in many places when heavily loaded. This creek opens into the harbor proper back of Squaw Island. It is not broad at its mouth, though deep, but a short distance up it widens at points, making indentures into the land which are admirably formed for slips. For about three-fourths of a mile, if not to a greater distance, there is sufficient width to allow the turning of large vessels. The entrance would probably have to be widened a little to admit of the passage of two vessels at the same time, but the principal work beyond this would be in deepening those parts of the creek which the state ditch sewage has filled up. Dredging would doubtless be easy and therefore rapid. On account of these facts the expense of making this part of the creek navigable would be comparatively small. Without the dredging of numerous slips, which private parties owning property on the creek would doubtless have done, a water front of at least three miles would be secured. Were property owners to dredge slips, this front would doubtless be doubled and perhaps trippled. The great lines of railroads are now within easy distance of this property bounding the creek and would be at small inconvenience or expense in supplying whatever rail facilities were needed.

ALL craft, except schooners have a system of signals by which they can make signs of distress. A schooner has no means of making such a fact known. She has a torch, it is true, but the exhibition of that may be for some other purpose and no attention paid to it by the persons whose attention it is desired to attract, the life-savers for instance, and vessels have been known to founder because their distress could not be made known, and many crews have been lost in the same way. The showing of a torch may lead the life savers to believe the vessel simply wants a tug. This matter should command the attention of vessel owners and legislators and a code of signals for schooners in distress adopted as soon as may be. The system might consist of rockets or some other attractive means of informing lookouts that a schooner was in danger, and in the meantime it would be well if the simple torch were given more consideration at the hands of lookouts, and it would be quite safe for the life saving crew to go out and see what is the matter with the vessel after her torch appeared half a dozen times. The best way to obviate this confusion would be to adopt the international distress signal rockets or blue lights.

ON another page will be found a comprehensive extract of the Dingley shipping bill, passed by Congress last week, and signed by President Arthur on Friday. The bill went into effect on Tuesday, the 1st instant, and, as shorn of its free trade and other objectionable features, attached to it in the shape of amendments, will be what its author intended, a great relief to the maritime interests of the country. In passing this bill Congress has removed a long list of charges and restrictions which have naturally aided in making vessel property unprofitable and deterred capitalists from investing largely in ships. By referring to the extract above mentioned it will be seen that the bill deals properly with the question of limitation of liability, and also that it is in a measure reciprocal, and that it will benefit Canada to the extent of her trade with this country. The President will issue a proclamation to that effect as soon as he is officially informed that Canada levies no tax on American vessels trading into her ports.

THE local inspectors of steamboats, who are noted for their desire to oblige masters, whenever it is consistent with their duties, have adopted a mode of procedure under the new pilot rule which materially assists and simplifies its working. After receiving an application properly signed, they examine the man as to his fitness to act as pilot or master. This done, they write out the result of the examination and send it, with a copy of the application, to the next board of inspectors, who in turn send it to the next. In this manner it goes the rounds of the lake, and when all have signed the application the applicant gets his license from the board who originally received his application.

IT may not be generally known, that A. N. Moffat, of Detroit, is really entitled to the credit of instigating the measure carried through the House of Representatives last week, relieving shipping of the onerous charge of 70 and 50 cents for entering, and the same for clearing, to 10 cents each on vessels engaged in domestic commerce, and will, as it has become a law, materially reduce the customs expenses on lake steamers and vessels making short and frequent trips between ports in contiguous customs districts. The bill was strongly supported by statistics.

ON July 3d, and 4th, the New York, Pennsylvania, and Ohio railroad will sell single trip local tickets to all stations on the line of its road at the regular fare, the same being accepted for return passage to starting point on July 4th, 5th, 6th and 7th, without extra charge, thus affording a round trip passage for the fare one way.

OBITUARY.

We are pained to announce the death of Mr. Oscar Cowle which removed him from his pleasant home No. 90 Clinton street on Sunday the 29th June. Oscar Cowle, was 31 years old and but a few weeks ago was in the full vigor of young manhood. At the time he was taken sick, with inflammatory reumatism and fever, he was employed at the Globe Iron Works, as assistant bookkeeper, of which firm his father, Mr. J. B. cowle, is a member. Oscar Cowle was a young man above reproach and in whom his father, mother and sisters took much pride and pleasure.

THE PROPELLER CUMBERLAND.

CHICAGO, July 1.

Editor of the Marine Record.

I do not see that Mr. Payne's letter corrects any misstatements in my letter of May 3d, in which the engineer of the City of Rome claims I stated the Cumberland would tow a vessel faster than she would run alone with the old machinery. What I did state was that she would tow a vessel as fast, and I only took his own statements of what she did before. It is possible that on some extra occasion the Cumberland may have turned the wheel as stated in that letter, but the indications given in my letter was but an average, and on the down run, Chicago to Escanaba, light, the wheel was turned eighty times with eighty-five pounds of steam, cutting off at ten inches. Now, if my former letter gave evidence of wonderful results, this indication, which is also an average, will surpass it, I would further state that all I know about the Cumberland's doings last season is what Mr. Payne told me. I also had information from engineers who speak the truth, who have run her engines fully as well as Mr. Payne. Masters who towed behind her say she laid broadside too most of the time. It took three men to handle her in any tight place last season. One man can handle her with ease now in Chicago creek. I fail to see the point Mr. Payne wants to make, unless it is a question of ability. If so, the City of Rome and the Cumberland's engines are almost similar, and should give pretty nearly the same results, if properly engineered. Now, if Mr. Payne will transfer the interest he feels in the Cumberland to his own boat, he will have his hands full and may do wonderful things too. Anything I have said my bills and running time will bear me out in, and I am willing to back it up.

MATTHEW THOMAS,
Engineer steamer Cumberland.

AFTER long debate the river and harbo bill has been passed by Congress. As originally passed by the House it appropriated $12,086,200. The Senate Committee added $1,268,000, and the Senate itself made further additions of $230,500, making the amount of the bill as it now stands $13,584,700. We have heretofore given the amount of different items.

THERE is now a torch in existence that will enable schooners to notify approaching steamers of their exact position and sailing course, and if it would be adopted by masters generally we should have fewer collisions to record.

ERIE.

The missing fishing crews, carried away from the fishing gounds by last week's storm, have returned, having found a friendly lee on the Canada shore.

BAY CITY.

The steamer Metropolis ran into and damaged the Third street bridge on the 1st inst., obstructing travel. This swing has been carried away four times.

DETROIT.

Special to the Marine Record.

July 1—The season thus far on the upper lakes has been preeminently a foggy one, a large proportion of the losses that have occurred have come from this source. The casualties during the month of June foot up a total of $128,300 which may be summarized as follows: From stranding, $51,800; collisions, $20,300; Fire, $18,200; ashore, $6,100; capsized, $2,000; disabled, $17,300; sunk, $2,500, and heavy weather, $10,100. There were seven deaths during the month—two from natural causes, one suicide, the others accidental.

On Thursday evening last the tug Oswego started with the schooner A. Boody from Wyandotte, intending to take her to Toledo to load coal. Before getting out of the channel she stranded, and the Boody, following directly in her wake, struck her square in the stern, forcing her harder on beside doing serious damage to her hull. After two or three days' delay, caused by a low stage of water, the Oswego was released by the tug Champion and taken to Springwells' drydock for repairs.

The tug Bob Haekett, which I informed you in my last had gone to Wheatly, Lake Erie, to release the schooner Cataract, ashore there, returned unsuccessful, after a few days' trial, to Windsor to take a rest. She left again to make another effort, and it is to be hoped on this occasion may be more fortunate.

The quantity of lumber passing this way from Lake Huron and Georgian Bay is simply enormous. Only a day or two since, within the space of two hours, upward of eight millions passed on board of barges, all of which had heavy deckloads, and within the past twelve hours the estimated quantity would fully reach thirteen million feet.

A fine sailing yacht of fair dimensions arrived here on Saturday from Clayton. As there is a large surplus of that article here at present, beside which Dean & Co. can build them faster than ordered, it is difficult to divine what it all means or what she is here for.

Messrs. Candler Brothers, of this city, have placed some of their fleet in ordinary at Bay City until such time as there is a better per centage in the lumber carrying, and at other points I learn a like course is being pursued. Across at Windsor one steamer and a vessel have been retired for several days.

The fine steamer D. D. Calvin, of Garden Island, was on her return voyage Saturday last, having in tow three large barges, all laden with timber, including the steamer, for the Quebec market, the aggregate quantity being 100,000 cubic feet.

The rafting business continues to boom, and a more favorable time could not be wished for. At this writing there are not less than eight or ten wending their way to various eastern ports.

The clearances at Chicago announce the departure from that port of the steamer City of Rome, having on board 65,000 bushels of wheat, 42,650 bushels of corn and 30,000 bushels of oats, which, if the figures are correct, out-champions the champion Onoko in quantity, and is the largest of the season.

Notwithstanding it has stoutly been maintained that there is a large surplus of tonnage on the lakes and vessels are being laid up, the vessel building still continues, and in one day, on Lake Michigan, no less than three vessels were launched.

The steambarge Alcona, which, some three weeks since, broke down with her engine on Lake Erie and towed to this port, has had a new compound engine placed in her and taken her departure for Duluth to meet her barges, which were taken there by another steamer.

The following are some of the later charters at this port: Steamer Bruno, timber, Port Huron to Garden Island, $60 per thousand cubic feet; schooner Laura, timber, Detroit to same point, $55; schooner George M. Case, iron ore, Escanaba to Sandusky, $1 per ton; schooner Wm. Young, coal, Toledo to Racine, 75c. Wood, Petoskey to Detroit, $2.25 per cord on the rail.

Steamers and vessels arriving here complain of detention in the Welland canal, owing to a low stage of water occasioned by a northeast wind. In the meantime there has been no deviation in toll rates.

The tug D. L. Hibard arrived here this morning with three barges laden with lumber from Lake Superior. As soon as discharged she will return with them, and then engage in towing rafts. The Hibard was formerly the P. H. Johnson.

Captain Fred S. Miller, an old veteran for many years connected with the Lake Superior route, was in this city on Saturday, where he met many old friends.

It will be in order to correct a statement in my last letter regarding the departure of the steamer Superior from Detroit for the Sault, which was the first boat to that locality. The year was 1822, July 2d, making it just sixty-two years instead of sixty-six. This squares it with the record and no exceptions can be taken.

The steamer Manitoba, which arrived here a short time ago from where she had been wrecked on Lake Huron, and to be repaired here, remains in *statu quo*. She has been removed from the Detroit drydock and taken to the bone yard for future disposition. As before stated the difficulty is solely between the insurers and insured.

The steamer Pearl arrived this morning from Mackinac, and reports not seeing a vessel on Lake Huron on the passage here.

The steamship Onoko, with her cargo of 100,000 bushels of wheat, passed down this (Tuesday) forenoon, making good time and showing a good side out of water.

The following charters were reported yesterday; schooner Senator Blood, wheat to Buffalo, 1¾c; barge Worthington, coal Buffalo to Detroit, p. t.; steambarge S. Shephard, salt, New River to Toledo, 13c per barrel.

There are but few arrivals of cargoes at this port, and a greater portion of the time the river is as bare as roses in December.

J. W. H.

BAY CITY.

A good many of the lake captains say they are now on their last trip and will lay up when they get back. They state that there is no money in the present lumber rates.

The machinery taken from the steamer George L. Dunlap will be housed in a temporary building for future use. The hull of the boat will be made into a barge when business brightens.

Lumber freights are weak and unchanged at $1.25 to Ohio ports and $1.50 to Buffalo.

KINGSTON.

The steamer Utica is shortly to be placed on the Clayton Gananoque route instead of the Puritan which will be taken to Deseronto. Captain Ed. Bass will command the Utica.

The new propeller Monteagle has cleared from Chicago for Ogdensburg laden with 100,000 bushels of oats, which is equivalent to over 60,000 bushels of corn. This is the largest cargo any boat has ever undertaken to carry through the Welland Canal.

The Marquis of Lorne left Monday with the barges Princess and William for Captain Merriman, who began work on the wrecked schooner Sam Cook Monday morning.

ASHTABULA.

A serious encounter took place here Sunday, in which one of the participants was fatally wounded. The schooner Selkirk, owned by Pat Smith, was loading coal for Portage, together with the schooners H. P. Baldwin and Colonel Cook, of the tug Sprague's tow. About 10:30 o'clock Sunday night a crowd of union sailors boarded the Selkirk, which carries a crew of non-union men, and attempted to pull off the crew. The latter made some resistance, and a fight ensued. Clubs were freely used and some firearms were displayed. The mate of the Selkirk naturally took the part of his men and at last finding that they would be overpowered, drew a revolver and shot the ringleader of the attacking party in the abdomen. The Union men took to their heels at the first intimation of bloodshed, leaving their wounded companion on the field of battle. The injured man was carried into a house near by and died during the afternoon. The mate gave himself up to the authorities, and had a hearing Monday morning before a justice of the peace. He was released, however, as the evidence demonstrated plainly that the shooting was done in self defense but again arrested and placed under $3,000 bonds.

TOLEDO.

A provision establishing a straight channel in the Maumee river and bay at this port, has passed the Senate.

The tug Dudley broke her shaft and blew out her cylinder head on Saturday at Eagle Point.

BUFFALO.

Special to the Marine Record.

The new propeller Sir S. L. Tilly arrived at this port on Sunday afternoon, and will take a load of railroad iron for Port Arthur. She was built by Shickluna at St. Catharines for S. Neelon, her complete cost being about ?80,000. She is intended to run through the lower canals to Montreal, and therefore is of limited dimensions. She is fitted in regular propeller shape, to carry merchandise, etc. Her frames are of iron, the planking being of wood. She is said to be well constructed throughout, though differing in many respects from American built boats. Her length is 178 feet, beam 35 feet, lower hold 15½ feet, between decks 8 feet. She has a fore-and-aft compound engine, the cylinders being 28 and 52 inches in diameter and the stroke 40 inches; and two steel boilers, each measuring 9½ feet by 11 feet two inches. Engines and boilers were built in St. Catherines. The wheel, one of Trout's, is 11½ feet in diameter, and has a lead of 14½ feet. The Tilly measures 679 tons and will carry about 1,200 tons on 14 feet draft. She is well equipped and comfortably furnished. Her commander is Captain A. McMaugh.

The new steamship Calumet, of Buffalo, has also taken on her fuel at Buffalo and a cargo of coal for Duluth. This will be her first trip. The Calumet was built and equipped by the Union drydock company. Her keel length is 255 feet; over all, 272 feet; beam, 37¼ feet; hold, 20 feet, 8 feet of this being between decks. She has two full decks, three spars and seven hatches. Her frames are iron strapped, with a heavy cord at the top. Her timber is all of selected white oak, the bottom being almost solid. Her engine, a fore and aft compound made by H. G. Trout, has cylinders of 28 and 52 inches, and 45 inches stroke, with steam reverse gear. The cabin arrangements of the Calumet are based on the most approved modern plans. The main cabin aft is finished in walnut with ash panels, and is decidedly a handsome apartment. Two spare staterooms off it are also done in walnut and ash. The officers' rooms forward are also comfortably large and nicely finished in grained pine. The captain's quarters are quite elegant. The equipment of the Calumet is also first-class, and includes a Providence windlass from the American Ship Windlass Company of Providence, R. I., and all improvements of service in the handling of boat or cargo. She has a handsome model. Her official measurement is 1,526.17 tons gross, and 1,180.71 tons net. It is calculated that she will carry nearly 2,000 tons. Her complete cost is $105,000, and she is owned by the Hon. James Ash, F. L. Danforth, R. R. Graves and others.

Captain Donnelly, the Canadian wrecker, has succeeded in raising the propeller Oneida, which was sunk last fall in the St. Lawrence river. The Oneida left Chicago with 35,000 bushels of corn for Ogdensburg, and just off Clayton, N. Y., she struck a projecting rock, knocking a hole in her bottom large enough to sink her. A New York wrecking firm undertook to raise the Oneida, but after sinking over $2,000 in the attempt they gave it up as a bad job. Captain Donnelly agreed to float the vessel for $10,000, and his offer being accepted, he went to work with tugs, pumps, and divers and in less that three week, had her afloat. The dispatches say he pumped her out, but other means must have been used to accomplish the result. Altogether, it is one of most successful pieces of wrecking work ever done on fresh water. The Oneida belonged to her commander, Captain McInness, of Buffalo. She was built in 1862, measured 1,102 tons, and was valued at $35,000. After her repairs are completed at Buffalo she will be put on her old route, between this port and Ogdensburg.

The steamer H. J. Jewett going up the river grounded opposite the Tifft elevator, the water being somewhat over a foot low. Tugs were unable to pull her off. There is a shoal at this point on which large vessels have lately fetched up, among them the steamers City of Rome, Rochester, and John B. Lyon.

The rebuild of the barge John Breeden at the Union yard will be finished this week. The work has been done under the supervision of her master, Captain Skinner, who is an experienced ship carpenter. The John Breeden was built at Port Dalhousie by Andrews in 1862, with a capacity of 317 tons.

Lake receipts of grain at Buffalo to the end of June, this season, were 12,269,920 bushels, a decrease of 5,524,680 bushels from last year for the same time. Coal shipments thus far this season foot up 446,800 tons, a gain of 20,940 tons over last year. Canal shipments of grain this year were 12,584,530 bushels, a decrease of 4,508,890 bushels under last season.

Coal freights were dull yesterday, vessels being scarce. The schooner Porter was chartered for Milwaukee at 80 cents. The schooner St. Lawrence will load railroad iron for Port Arthur at $1.50 free on board.

The new steel steamer building at the Union shipyard, is about two-thirds plated and has her bottom finished. She will be completed this season.

The supply steamer Haze is getting new decks, beams, and some new rail.

MILWAUKEE.

The new schooner Joseph Moffat was successfully launched Saturday afternoon. Her dimensions were given in a previous issue of the MARINE RECORD.

The Cleveland coal fleet is trying the capacity of the Milwaukee yards.

The wrecked steambarge Oscar Townsend arrived in tow of the tugs Leviathan and Delta, and was placed in drydock with about half her cargo, which will remain in her, as it will not interfere with her repairs. Part new keel forward and aft, new forefoot, part new garboard strakes, new shoes, stern post and rudder will be required, beside recalking. The repairs will cost about $1,000, which, together with the three tug bills and the cost of the ore jettisoned, will make the total damages about $5,000. The Oscar Townsend was built at Port Huron by Fitzgerald in 1873, is 1,038 tons burden, and rates A2. She is owned in Cleveland.

The wrecked barge Monitor arrived in tow of the tug Kate Williams, which gets $3,000. She will be docked here. She is apparently in bad shape, two pumps being required to keep her free. About 200 tons of her cargo of coal remain in her. The barge is uninsured.

The wrecking tug Leviathan goes to Washington Island to the Lincoln Dall, and the Kate Williams to the Bermuda at Grand Island, Lake Superior.

The cargo of grain of the damaged schooner North Cape was not damaged.

Clark I. Butts' schooners Thomas P. Sheldon and Camden, coal laden, made the run from Cleveland to this port in a few hours over four days. The Thomas P. Sheldon is a recent purchase of Mr. Butts, and was built at East Saginaw by Crosthwaite in 1871, was extensively repaired in 1884, is 669 new tons burden and rates A2½. She is valued at $20,000. The Camden, which Mr. Butts has long owned, was built in Cleveland by Quayle & Martin in 1872, is 694 tons burden, and is classed A2. She is valued at $24,000.

John Saveland was awarded the contract of supplying the Johnson with rations for this season.

The schooner Restless was docked at Wolf & Davidson's main yard for recalking.

Repairs on the old scow J. M. Hill, at Milwaukee, are nearly completed, and she will soon come out in a new dress and under a new name. Her name in the future will be Dan Maybe, after her past owner, who sailed her a great many years. She will have three spars also, instead of two, and her ends will be sharpened a little. Captain Ed Coles will command the Maybe. The J. M. Hill was built at Nesbeata by Brown in 1866, was 193 tons burden and owned by Lyman, et al. her port of hail being Milwaukee.

Charters—Propeller A. L. Hopkins, ore Escanaba to Ohio ports, 95c; barge Schuylkill, 40,000 bushels of wheat to Buffalo.

FRANKFORT.

Special to the Marine Record.

One-half interest of the tug Hannah Sullivan was sold for $3,000.

Captain Nat Robbins, superintendent of life saving stations of this district, also Lieutenant Rogers, visited Point Betsy station last week, and claims that Captain Matthews and crew are the best drilled and neatest station under their charge.

Captain Lockwood, U. S. A., of Grand Rapids, in charge of harbors, inspected the Frankfort harbor and gave orders for some pile work.

C. B.

LAKE AND OCEAN TRAFFIC.

THE LARGEST SCHOONER SENT OUT—QUICK PASSAGE—THE OLD BARK ALEXANDER.

Special Correspondence Marine Record.

DETROIT, June 30.

Of the numerous vessels sent from the lakes to the ocean the largest, not including steamers sent to New York, was the Cataragui, of 550 tons burden. Of those under 200 tons there were eight, and from this up to 300 tons there were twenty-six, and up to 400 tons ninety-four, from the last figure up to 500 there were nineteen. The smallest of the fleet was the sloop Chase, 18 tons; sloop Skoldjomen, 55 tons, which came over from Norway, and the schooner Chief, 88 tons, built here for Boston parties. The bark Alexander, which within the past few days has been forsaken and abandoned in the port of Chicago, was one of the stateliest, in those days, which performed an European voyage by a quick passage. She was commanded by Captain A. Muir, who was also owner, and still navigates the lakes. There was a perceptible falling off in the traffic in 1870, and but two voyages were made that season—the bark Wirralite, 392 tons burden, with petroleum from Cleveland, and the bark Thermutis with a like cargo from the same port.

In 1871, October 25th, the United States revenue steamer Hamilton was sent from Buffalo to New York, but no others left that season, and none in 1872.

In 1873, during the month of November, the United States revenue steamer George S. Boutwell was dispatched from Buffalo to New York City.

In 1874 there were five vessels sent out, as follows: May 13th, schooner C. B. Benson, Captain Duff, corn, Toledo to Cork.

May 14th, schooner Pamlico, Captain E. Stretch, corn, Chicago to Cork.

June 10th, bark J. S. Austin, Captain Joe Kimball, spars to Portland, Me., from Bay City.

September 13th, schooner Alice, Captain T. A. Burke, bone dust, Chicago to Leith. The Alice made the run in eleven days from land to land, and was sold not long afterward.

October 5th, schooner G. C. Trumpf, Captain A. Gibbs, bone dust, Chicago to Cork. The Trumpf returned to the lakes the following season.

1875—July 4th, schooner Pacific, Captain John Ewart, bone dust, Chicago to Queenstown.

1876—May, brig Mechanic, 312 tons, Captain J. M. Kelley, deals, Muskegon to Queenstown.

Schooner Enterprise, 296 tons, Captain J. Powers, deals, Muskegon to Glasgow.

July, bark Thos. C. Street, 326 tons, Captain Phipp, timber, Cheboygan to Cork.

July, schooner Jessie Scarth, deals, Muskegon to Bristol.

Schooner Cambria, 360 tons, timber, Cheboygan to Leith.

Schooner Thistle, Captain Wm. Gamble, timber, Cheboygan to Liverpool.

August, brig Pamlico, 411 tons, Captain Hayden, timber, Cheboygan to Liverpool.

Schooner Twin Sisters, Captain Strachan, timber, Muskegon to Liverpool.

September, schooner Columbian, 456 tons, Captain Canevon, pine, Alpena to Liverpool.

Schooner John Shuette, deals, Muskegon to Bristol.

Schooner Shandon, deals, Muskegon to Dublin.

Bark J. S. Austin, Captain Williams, deals, Alpena to Liverpool.

Schooner City of Manitowoc, Captain John Higgie, deals, Manistee to Queenstown.

Schooner Middlesex, deals, Manistee to Leith.

Schooner E. Blake, Captain Peter Thompson, deals, Lake Michigan to Dundee, Scotland.

Schooner W. G. Grant, Captain Angus May, deals, Three Rivers, Quebec to Oporto.

October, tug E. B. Ward, Captain W. Bradford, Detroit to New Orleans.

Schooner Waucoma, Captain J. C. Gibney, deals, Detroit to Liverpool.

The schooner Waucoma, with a cargo of deals for Liverpool was abandoned at sea in September, 1876. No other departures during that season. The schooner C. B. Benson, which left the lakes May, 1874, remained at sea until 1877. The schooner Columbian, which went out in 1876, did not return until the year following, in September, and was the longest making the trip to Europe and back of any vessel that ever undertook the voyage, and yet she was built purposely for the ocean trade. Aside from the foregoing, there is nothing of special note regarding the lake and ocean trade, and it may be considered quite certain it has met its demise beyond a revival for all future time.

J. W. H.

The schooner James Mowatt, on the stocks at Chicago, was launched on Saturday. Her capacity will be about 35,000 bushels of wheat and 600,000 feet of lumber.

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Established in 1834.
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MARINE ENGINES
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SHIP AND BOAT BUILDING,
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Only Miners of
BUTTS CANNEL COAL,
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FOR SALE,
One-half Interest in a New Steam Yacht.
To an ENGINEER who will give his own services For full particulars address,
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AT
THE GLOBE IRON WORKS.

SECOND HAND TUBULAR BOILER, 44 inches diameter, 43 tubes 3 inches diameter and 12 feet long, steam drum 30 inches diameter, 40 inches high; front grates, fittings and breechings; good order.

SECOND HAND MARINE BOILER, in good order; Shell, 7-16 inch iron plate; diameter, 9 feet 6 inches. length, 18 feet; 129 tubes 4 inches in diameter, 11 feet 4 inches long, three flues 18 inches diameter; two flues 16 inches diameter, two flues 10 1-2 inches diameter; fire box, 6 feet long, 4 feet high; steam chimney, 7 feet high.

SECOND HAND MARINE BOILER four feet wide, 6 1-2 feet long, 5 feet high, sixty-four 2 1-2 inch tubes 60 inches long, cast iron breeching, good as new.

SECOND HAND MARINE ENGINE; double direct-acting 8x8 inch cylinder, shaft and wheel for yacht or tug; good as new.

C. E. BENHAM,
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KEEPS IN STOCK
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DOMESTIC & STEAM COAL
Cleveland, Ohio

TRAVELERS' REGISTER.

LAKE SHORE & MICHIGAN SOUTHERN.

Commencing Sunday, May 11, 1884, at 12 o'clock noon the time given in the figures below is the new standard (Ninetieth meridian) time, which is thirty-three minutes slower than Cleveland time proper:

Eastward.	Arrive	Depart.
No 4, Fast Limited Express	*1 10 A M	*12 05 A M
No 8, N Y, B & A Express	*6 35 A M	*7 00 A M
No 26, Elyria Accommodation	†8 05 A M	
No 35, Buffalo Ac'm via Sandusky	†10 35 A M	†10 50 A M
No 35, Toledo Accom via Norwalk	†10 35 A M	†10 50 A M
No 12, N Y & B Fast Express	*1 55 P M	*2 25 P M
No 14, Special N Y & Bos Expres		5 00 P M
No 2, Night Ex via Norwalk	9 40 P M	†10 00 P M
No 22, Night Ex via Sandusky	†9 42 P M	
No 26, Conneaut Accommodation	†4 25 P M	

Westward.	Arrive.	Depart.
No 1, Fast Limited Express	*11 55 A M	*12 05 A M
No 23, Mich Express via Sandusky	*2 15 A M	*2 35 A M
No 3, Chicago Express via	‡6 05 A M	6 30 A M
No 25, Mich Accom Norwalk		†6 10 A M
No 21, Toledo Ex via Norwalk	†12 55 P M	†3 20 P M
No 5, St Louis Ex via Sandusky	†12 15 P M	12 40 P M
No 9, Chi Pac Fx via Norwalk	*6 06 P M	*6 30 P M
No 31, Elyria ac to Elyria only		†4 30 P M
No 27, Conneaut Accommodation	†8 10 A M	

Sunday train for Nottingham—Depart 8:30 a. m. and 1:45 p. m.; returning, leave Nottingham at 9:05 a. m. and 3:45 p. m.

Reference marks—* Daily, † daily, except Sunday, ‡ daily, except Monday.

For full information as to trains and connections apply at the new city ticket office, corner Seneca and St. Clair streets, Lake Shore block.

BEE LINE

CLEVELAND, COLUMBUS, CINCINNATI & INDIANAPOLIS.

Commencing Sunday, June 8, 1884, trains of the Bee Line—Cleveland, Columbus, Cincinnati & Indianapolis Railway—will leave and arrive at Cleveland as follows. CENTRAL STANDARD TIME, 33 minutes slower than Cleveland time:

	Depart
No. 3, Columbus, Cincinnati & Ind Ex	7:00 A M
No. 23, Galion & Wheeling Express	6:40 A M
No. 9, Col., Cin., Ind & St. Louis Ex	*6:40 P M
No. 5, Col. Cin., Ind. & St. Louis Express	*12 35 P M
No. 27, Galion & C.L & W. Acc	4:00 P M
No. 29, Massillon & Ulrichsville Ex	5.00 P M
	Arrive.
No. 8, Col, Cin, Ind. & St. Louis Exp	*6:40 A M
No. 20, Uhrichsville & Massillon Ex	9:00 A M
No. 2, Col. Cin. & Indianapolis Express	9:50 P M
No, 14, St, Louis, Ind.. Cin. & Col. Ex	*4:45 P M
No. 22, Galion Acc	10:00 A M
No. 26, Wheeling Accom	4:30 P M
No. 4, Col., Cin & N. Y. Express	1:15 A M

Trains marked * daily, all other trains daily except Sunday

E. B. THOMAS, General Manager. O. B. SKINNER, Traffic Manager.

A. J. SMITH, General Passenger Agent.

CLEVELAND, OHIO.

New York, Pennsylvania & Ohio R. R.

NEW YORK, BOSTON AND THE EAST.

The Shortest and Quickest Route to Pittsburg, Washington and Baltimore and the Southeast.

Central or Ninetieth Meridien time. 33 minutes slower than Cleveland city time.

Until further notice trains will leave from the new Central Depot, South Water street and Viaduct as follows:

6.50 a. m. ATLANTIC EXPRESS—(Daily) Pullman sleeping and hotel coaches from Leavittsburgh 8:35 a. m. to New York, Albany and Boston without change. Arrive at Meadville at 10:40 a. m. (dinner) Franklin at 12:08 p. m, Oil City 12:30 p. m, Corry 12.35 p. m, Jamestown (Lake Chautauqua) 1.35 p. m, Buffalo 5:50 p. m. Rochester 8:20 p. m.; Hornellsville 6:00 p m. [supper]; Corning 7:25 p. m, Elmira 8:05 p m. Binghanton 10:05 p. m., Albany 5:00 a. m. Boston 1:45 p. m.; arriving at New York 6:15 a.m.

2:20 p. m. LIMITED EXPRESS—Through Pullman sleeping coach from Cleveland to New York. Arrives at Meadville at 6:30 p. m, Jamestown 8:47 p. m., Salamanca 9:45 p. m., New York 10:10 a. m.

11:00 p. m. NIGHT EXPRESS—(Daily except Sunday) Seeping coach from Cleveland Hornellsville. Arrive at Youngstown at 1:50 a. m., Meadville 3:25 a. m., Corry 4:59 a. m. Jamestown 5,57 a. m, Buffalo 9:20 a. m., Rochester 12:58 p, m., Hornellsville, 11:00 a m, Corning 12:07 p m, Elmira 12:40 p. m., Binghampton 2:19 p m., New York 9:10 p. m. Arrive at Pittsburgh 5:50 a. m., without change.

2:20 p. m. PITTSBURGH EXPRESS — Daily — Through without change, Parlor car attached. Arrives at Youngstown 5:00 p m., Pittsburg 8:02 p. m., Washington 7:09 a. m, Baltimore 8:19 a. m.

4:11 p. m. MAHONING ACOMMODATION — Stopping at all way stations, arriving at Youngstown 6:55 p. m., Sharon 8:01 p. m., Sharpesville 8:10 p. m.

6:50 a. m. PITTSBURGH EXPRESS — Daily — Through without change. Arrives at Youngstown 9.30 a. m., Sharon 10:30 a. m., Sharpesville 10:40 a. m., Pittsburgh 12 45 p m., Returning, leaves Pittsburgh at 4:15 a. m., 7:45 a. m., 12:55 p. m., and 3:45 p. m.

10 35 a. m. YOUNGSTOWN AND PITTSBURGH ACOMMODATION—Stopping at all Way stations, arriving at Youngstown 1:40 p. m., Pittsburgh, 5.45 p. m.

Trains arrive at Cleveland, 6:15 a. m., 6:30 p. m., 10.20 a. m; 1:05 p. m., and 9:45 p. m,

☞ This is the only route by which passengers can reach Corry Elmira, Binghampton, New York City and intermediate points without change. No change to Boston and New England Cities.

Baggage checked through to all points East

Through tickets and information regarding the route can be obtained at the office 131 Bank street, and at new Depot of N. Y., P & O R R., South Water street and Viaduct, Cleveland, O.

A. E. CLARK, Gen'l Pass'r Ag't Cleveland, O.
J. M FERRIS, Gen'l Man'gr, Cleveland, O.
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NEW YORK, CHICAGO & ST. LOUIS RAILWAY.

The passenger equipment of this New Trunk Line is all new and is supplied with the latest appliances necessary to safe speedy and comfortable travel.

At Chicago, passenger trains arrive at and leave from the Union Depot, Van Buren street.

Following is the time in effect June 1, 1884, and until further notice:

GOING EAST.

Lv. Chicago	7.50 a. m.			
Arr. Valparaiso	9.45 "			
" Fort Wayne	1.30 p. m.			
" New Haven	2.05 "			
" West Leipsic	3.56 "			
" Arcadia	4.49 "			
" Fostoria	5.00 "			
" Green Springs	5.45 "			
" Bellevue	6.10 "			
Lv. Bellevue	6.20 "	7.55	a. m.	
Ar. Lorain	7.50 "	9.16	"	Accom.
Arr Cleveland	9.02 "	10.22	"	
Lv. Cleveland		10.27	"	3.52 p. m
Arr Painesville		11.33	"	5:05
" Ashtabula		12 25	p. m.	6.03
" Conneaut		12.50	"	6.30 "
" Erie		2.09	"	
" Dunkirk		3.47	"	
" Buffalo		5.20	"	

GOING WEST.

Lv Buffalo	9.50 a. m.			
Arr Dunkirk	11.24 "			
" Erie	1.23 p. m.			Leave
" Conneaut	2.20 "			6.15a. m.
" Ashtabula	2.51 "			6.46 "
" Painesville	3.44 "			7.43 "
" Cleveland	4.52 "			8.55 "
Lv Cleveland	4.57 "	6.47	a. m.	
Ar. Lorain	6 12 "	7.35	"	
Arr Bellevue	7.35 "	9.10	"	
Lv Bellevue		9.20	"	
" Green Springs		9.44	"	
" Fostoria		10.22	"	
" Arcadia		10 34	"	
" West Leipsic		11.30	"	
" New Haven		1 35	p. m.	
" Fort Wayne		1.50	"	
" Valpraiso		5.42	"	
" Chicago		7.50	"	

Through tickets to all points are on sale at principal offices of the company at LOWEST RATES for any class of ticket desired. Baggage checked to destination

For information, call on nearest agent of the Company, or address

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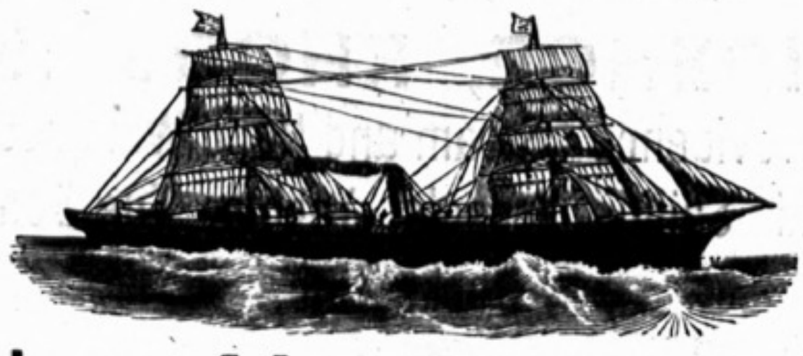
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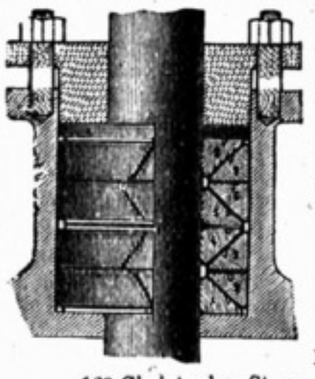
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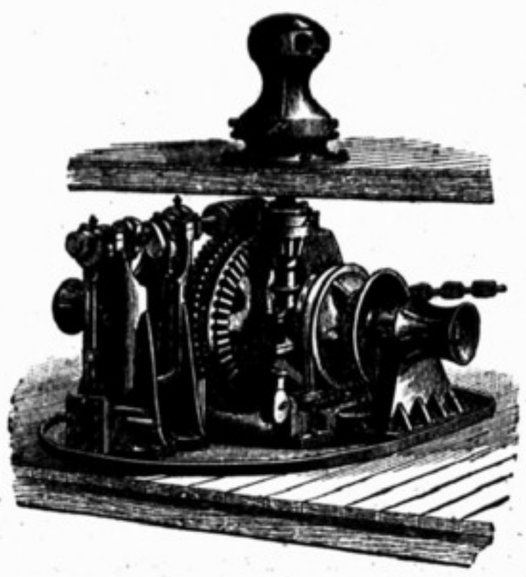
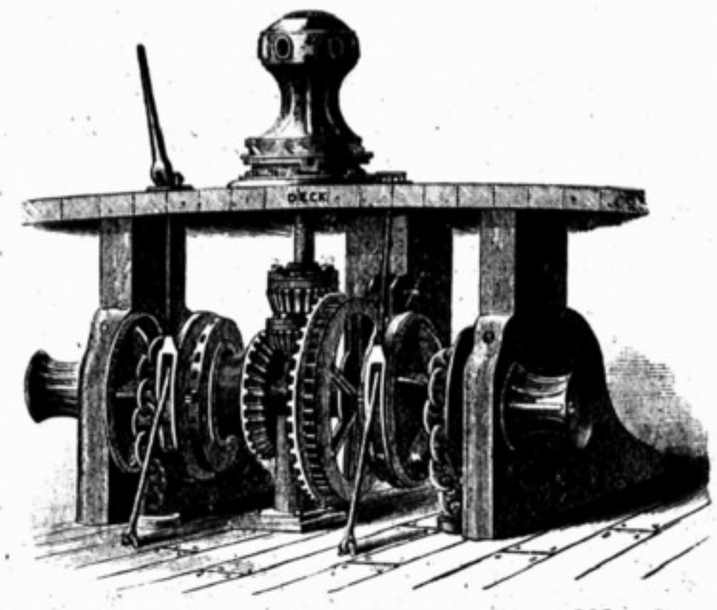
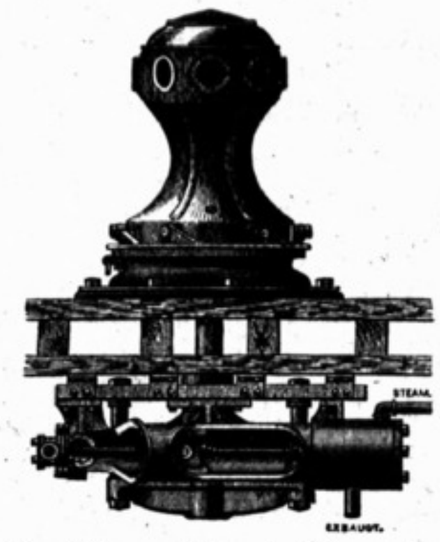


The Providence Patent Steam Capstan Windlass, New Style.



The Providence Patent Capstan Windlass.



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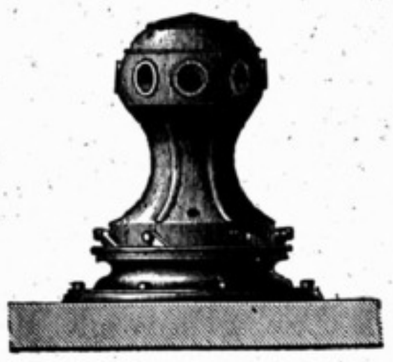
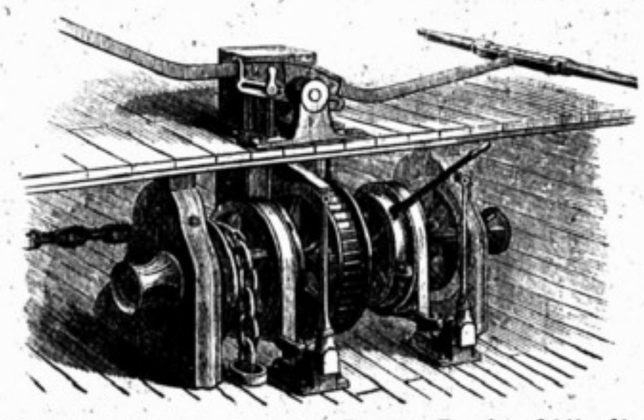


The Providence Patent Power Capstan.



The Providence Patent Pump Brake Windlass.

The Providence Patent Crank Capstan.

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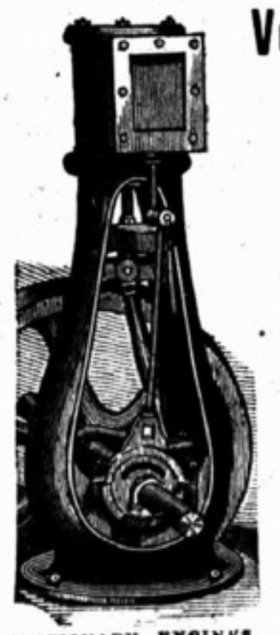

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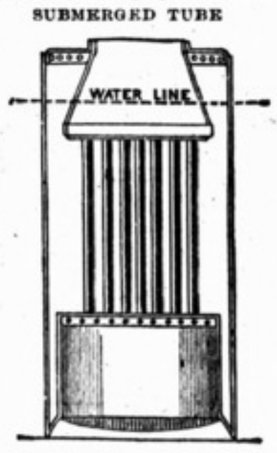
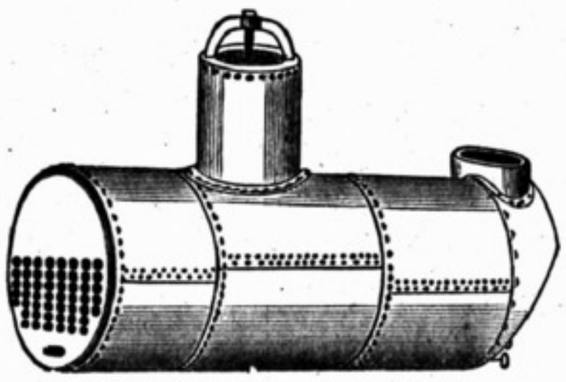
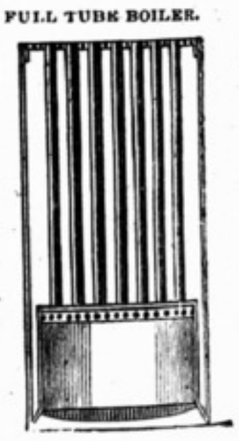


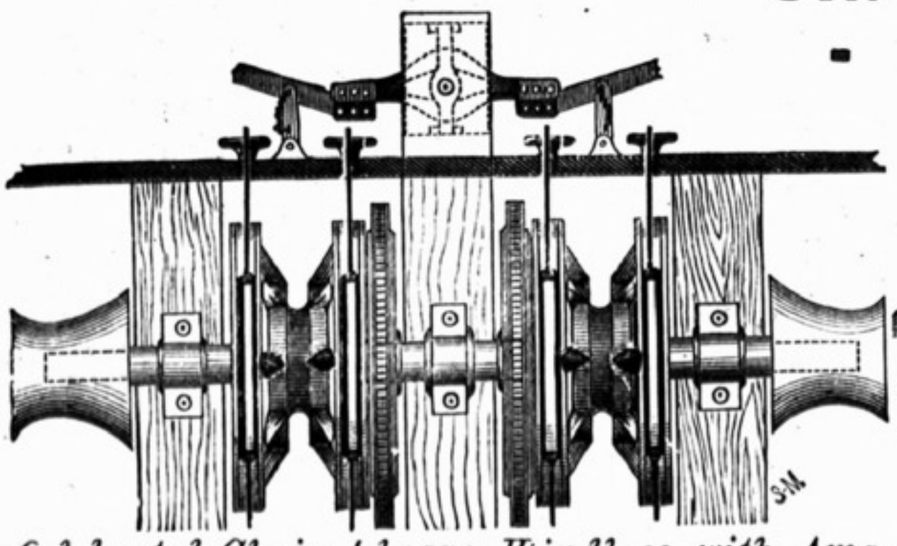


TUBULAR BOILER.

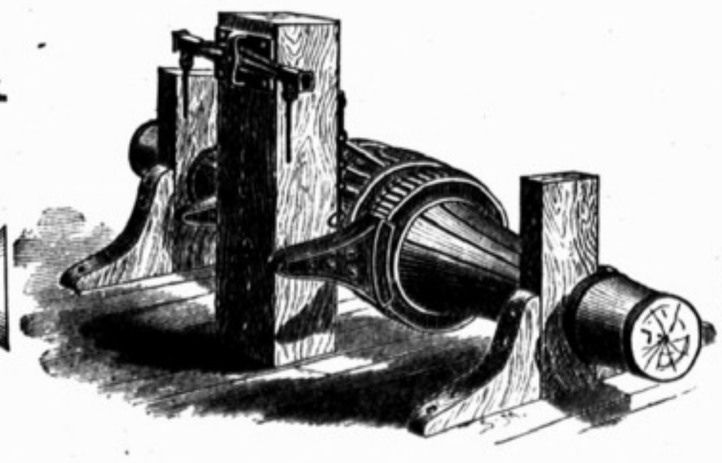
FULL TUBE BOILER.



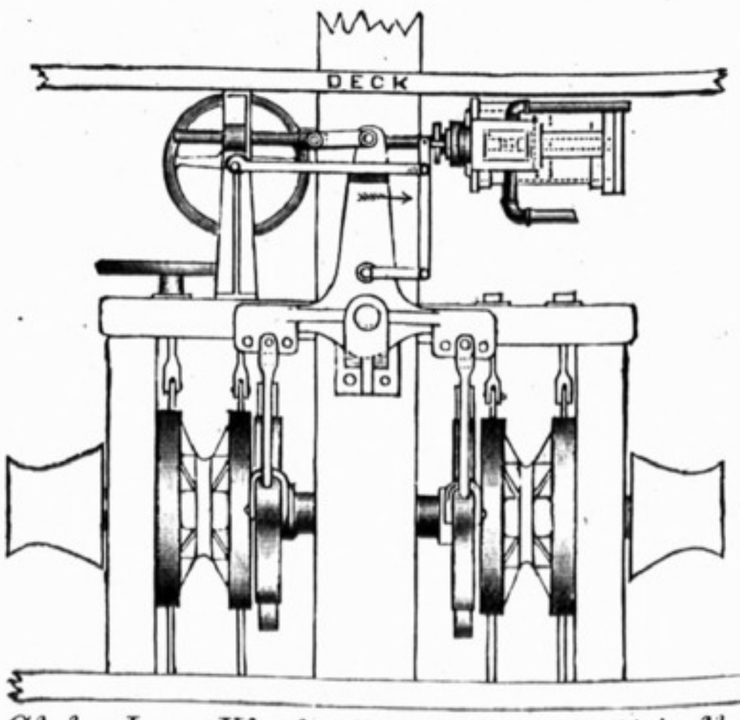
Ship Chandler's List.



Celebrated Chain Sheave Windlass, with Amazeen Beam.



The Common Patent Windlass.



Globe Iron Works Patent Steam Windlass